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ABSTRACT

Existing data on the status of women, both as students and as members of the full-time teaching staff, are examined. Actions taken, being taken, and being planned by the Ontario universities are also reviewed. It is shown that, in general, women do not participate as fully as students as do men, but there is no evidence at the system level to suggest that this situation results from discriminatory practices in the universities. Women also generally do not have equality of representation on the teaching staffs. The percentage of female teaching staff does not differ substantially from the percentage of women in doctoral programs, which leads to the conclusion that the situation will not change in the next few years. Women on the teaching staff have not been promoted into the higher academic ranks to the same extent as their male counterparts nor are their average salaries as high. Universities are re-examining their policies and procedures with regard to such concerns as recruiting, hiring, remuneration, promotion, and granting of tenure, pension and fringe benefits, and day care facilities. Tabular data are included. (LBH)

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THE STATUS OF WOMEN
IN THE ONTARIO UNIVERSITIES

By

L. C. Payton

A Report to

the Council of Ontario Universities

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Introduction

At the April, 1974, meeting of the Council of Ontario Universities a paper entitled Women and Post-Secondary Education in Ontario was presented by the Ontario Status of Women Council. This paper cited evidence of the disadvantaged position of Canadian women in the labour force in general and in institutions of higher education (both as students and as members of the academic staff) in particular. According to Statistics Canada figures, the percentage of women undergraduates in Canadian universities increased from 15% to 36% over the past fifty years. During the same period, however, the percentage of women graduate students declined from 26% to 23%. In the Ontario universities during this period the percentage of women members of the full-time teaching staff fluctuated between 7% and 14%. This evidence would appear to support the claim that women do not have equal participation in post-secondary education.

This paper will examine existing data on the status of women in the Ontario universities, both as students and as members of the full-time teaching staff, and also what actions the Ontario universities have taken, are taking, or are planning to take in respect of this issue.

A. The Status of Women Students

The participation of women as students in the Ontario universities will be examined at four levels, as applicants (and subsequently as registrants) for full-time study in the first year of undergraduate programmes, as full-time undergraduate students, as full-time graduate students at the master's level, and as full-time graduate students at the doctoral level. It will be shown that the higher the level, the lower the participation rate for women. In fact, women do not have equality of participation with men as students at any level in the Ontario university system.

Given that there are fewer women students than men, one might ask

if women apply for study at university in the same ratio as men. There are no centralized data available showing application patterns for study at the graduate level, but at the undergraduate level such data were obtained from the Ontario Universities' Application Centre. The data are on applications for full-time study in the first year of post-Year 5 undergraduate programmes in September, 1973. Statistics on applicants, and applicants who subsequently registered, are presented by programme in Table 1.

About 41% of the total applicants were women, but the percentage of women showed a considerable variation when the individual programmes were examined. Women accounted for 51% of the applicants in arts, but for only 29% of the applicants in science. (Applicants for these two programmes accounted for 61% of the total number of applicants.) Programmes in the areas of "traditional female occupations" such as dental studies (primarily dental hygiene), education, household science, nursing, rehabilitation medicine and social work showed a high percentage of female applicants, ranging from 73% for education to 97% for nursing. However, the high percentage of female applicants in these areas did not have a great effect on the percentage for the total since, for the most part, these programmes tended to be relatively small. On the other hand, programmes in the areas of "traditional male occupations" such as business and engineering and applied science (which includes architecture, engineering and forestry) showed rather low percentages of female applicants: 23% in business and only 4% in engineering and applied science.

The participation ratios for applicants who subsequently registered are quite similar to the corresponding ratios for applicants. Of total registered applicants, 43% were women, a slightly higher participation ratio than for applicants. The participation ratio for women was higher or the same in all but three programme areas.

The statistics presented in Table 1 seem to indicate that there is no evidence of discrimination against women in the admission practices of the Ontario universities. However, the applicant figures clearly show that fewer women than men sought admission to university in the first place and that their choices of programmes were quite different than those for men. This situation may have resulted from basic attitudes on the

part of society as a whole, from parental beliefs, from counselling in the secondary schools or from the liaison activities of the universities. For their part the Ontario universities could examine their promotional and liaison practices to ensure that the benefits of university education for women are stressed and to point out the opportunities for women existing in other than "traditional" areas.

The statistics on registered applicants show enrolment patterns in the first year of university undergraduate programmes. Some additional students, for example repeaters and transfer students, would have to be added to the figures of Table 1 to give a complete picture of first year undergraduate enrolment, but the numbers would not significantly affect the patterns shown. Table 2 outlines the enrolment patterns for full-time students at the undergraduate and graduate levels. The figures are not directly comparable with those of Table 1 because of the 2-year time differential; however, the detailed data for 1971-72 are the latest that are available from Statistics Canada. It is not expected that this time differential will greatly affect the comparison of the enrolment patterns.

It is readily apparent from the statistics in Table 2 that the higher the post-secondary educational level the lower the participation rate of women. At the undergraduate level, women accounted for 38% of the total enrolment, a slight decline from the participation ratio in first year. A sharp drop in the participation ratio was evidenced at the master's level, down to 25% of total master's students. At the doctoral level, women accounted for only 18%. This downward trend can be noticed in many of the programme areas. An interesting exception can be found in the professions of dentistry, law and medicine. In these programmes the participation ratios for women were significantly higher at the masters level that at the undergraduate level.

A number of reasons could be postulated to explain the substantially lower participation of women at the graduate level. Perhaps the most simplistic view would be that women are not as career motivated as men and

therefore, the total number of years which must be spent in university to attain a PhD degree must appear a formidable obstacle. But to be able to assume that women do not have the same academic objectives as men would require much more evidence than is available. As a start, applications to graduate schools could be examined in the universities to determine application patterns and the academic qualifications of men and women who are seeking to pursue graduate work.

It has been shown that there were differences in enrolment patterns between men and women at the undergraduate level; this factor does have a direct effect on the participation ratios at the graduate level. For example, a number of undergraduate programmes which showed a high participation rate of women, such as household science, secretarial science, nursing, rehabilitation medicine and dental hygiene, are in effect terminal programmes which offer no, or little, opportunity for work at the graduate level. On the other hand, large, traditionally male-oriented programmes such as commerce and business and engineering and applied science showed a high percentage of their graduating students going on for further study at the graduate level.

A more detailed study of enrolment patterns in faculties of arts and science, where significant numbers of women are to be found at both the undergraduate and graduate levels, is needed before any observations can be made on the decline in the participation ratio for women at the graduate level. As Table 2 indicates that differing proportions of graduating students from these programme areas entered into graduate study, participation ratios in science and arts must be examined separately. It may also be important to look at the proportions of men and women in 4-year as opposed to 3-year programmes of study as this factor may give some indication of the potential pool available for graduate work. Readily available data for such analyses are not to be found at the present time; however, the Statistics Canada University Student Information System might prove a source of data for such investigations.

In general, it may be stated that women do not participate as fully as students in the Ontario universities as do men but there is

no evidence at the system level to suggest that this situation results from discriminatory practices in the universities.

B. The Status of Women Academic Staff

The participation of women as members of the full-time teaching staff in the Ontario universities is examined using statistical reports for the academic year 1973-74 from the Statistics Canada University Faculty Salary Analysis System. Staff on sabbatical leave were included in the figures but staff on other leave, staff below the rank of lecturer and visiting and other staff were not included. Also excluded were staff in medicine (including veterinary medicine) and dentistry. These medical staff are often excluded from salary analyses because of the distortions produced by their salaries. Figures in the Statistics Canada reports showing the number of staff in each category were subjected to a technique known as "random rounding" which adjusts the numbers to a multiple of three. For this reason subtotals and totals may not necessarily equal the sum of the randomly rounded component figures.

Average salaries for male and female members of the teaching staff are presented in Table 3. It is readily observed that not only were there far fewer women than men teaching on a full-time basis in the Ontario universities but also their average salaries in most cases were below the comparable average salaries for men. In only one instance, that of lecturers with doctoral degrees, did women show a higher average salary. Looking at the totals, the average salary for women was fully 25% below the average salary for men.

Before commenting on this average salary differential, a number of factors will be examined to determine what effects they might have on salary levels for male and female teaching staff. Table 4 summarizes the distribution of male and female teaching staff by academic rank. Of the total staff shown, only 16% were women. This percentage varied considerably from rank to rank; 32% of the staff at the lecturer level

were women but at the level of full professor women accounted for only 3%.

Looking at the total staff rank distributions from a different point of view, 28% of males were full professors, 34% were associate professors, 31% were assistant professors and 7% were lecturers. For women the percentages were reversed, only 7% were full professors, 26% were associate professors, 41% were assistant professors and 26% were lecturers. Nearly two-thirds of the male teaching staff were found in the top two ranks but only one-third of the female teaching staff. Clearly then, women do not have equal representation with men as far as rank is concerned and this factor undoubtedly has an effect on the average salary differential.

The next factor to be considered is the respective qualification levels of male and female members of the teaching staff; these figures are summarized in Table 5. It can be seen that 69% of the male staff held doctoral degrees but only 42% of the female staff, 24% of the men held masters degrees and 42% of the women, 5% of the men and 14% of the women held only a bachelor degree, and 2% of both men and women held a professional degree (eg. M.D., D.D.M.). In general, it can be stated that male teachers had higher academic qualifications and it is likely that this factor also has an effect on the average salary differential.

The third factor to be considered is the number of years since award of the highest degree held by the male and female members of the teaching staff; this distribution is presented in Table 6. The results of the influx of new staff into the Ontario universities over the past few years can be clearly seen as 76% of the male teaching staff and 82% of the female teaching staff had held their highest degree for fewer than fifteen years. Furthermore, there does not appear to be a significant difference between men and women in the number of years since the highest degree was awarded. If this factor does contribute to the average salary differential between men and women it is likely to be of a lesser extent than the contribution of the two previous factors.

It has been surmised that differences in academic rank and qualification level between male and female members of the teaching staff probably account for a portion of the average salary differential. To demonstrate the validity of this assumption the salaries for women university teachers were normalized to eliminate the differences in the distributions of male and female staff arising from these two factors. The normalizing process involved a redistributing of the female staff so that the percentage of women in each academic rank/qualification level category was the same as the percentage for the male staff members. The average salary for women in each category was then used in conjunction with this new female staff distribution to calculate new rank average salaries and a new total average salary for women; the results of this operation are shown in Table 7. (For detailed calculations of the normalized salaries, see the Appendix) By normalizing the average salaries for women, the average salary differential between men and women has been reduced from 25% to 7%. It is interesting to note that, for the three highest ranks, the normalized average salary is somewhat lower than the unadjusted averages. This would seem to indicate that the contribution of the qualification level factor was in fact negative and that a major portion of the average salary differential was due to the fact that fewer women are to be found in the higher ranks.

There may, of course, be other factors which contribute to this differential. Some differences between male and female staff in the number of years since the highest degree was awarded have already been noted but the data do not permit this factor to be incorporated into the normalizing process because of the large number of cells in the tables for which there is no average salary figure for women. In fact, a more pertinent factor to use would be the number of years of relevant teaching and research experience but no available data exist in this area. Accordingly, the number of years since award of the highest degree is often used as the best available proxy.

Another factor which might have some influence on the average

salary differential is the distribution of men and women by discipline area. An examination of Statistics Canada tables showing the distribution of full-time teaching staff by broad discipline area showed that differences did exist in 1973-74. For example, 10% of the male teaching staff were found in engineering and applied science (the discipline area which showed the second highest average salary) while there was no representation on the part of women.

Another factor which cannot be examined from available data is whether men and women staff at the same teaching level do in fact have the same workload and level of responsibility. This, or course, can only be examined using the detailed data available within an individual university. It should be pointed out that teaching staff with administrative responsibilities have been included in the Statistics Canada figures presented in this report; this results in an upward bias in average salaries for staff in the higher academic ranks. To the extent that men are over-represented in administrative positions, this would inflate average salaries for men more than for women.

A more rigorous analysis than the one presented in this paper is possible using available data. Multiple correlation techniques could be employed to more accurately determine the effects on average salaries of factors such as academic rank, qualification level, discipline, age, number of years since award of highest or first degree, administrative responsibilities, and sex. However, in order to undertake such analyses individualized data are required. Each university would be able to perform such analyses for its own staff but at the provincial level only Statistics Canada has the data required for this undertaking.

In summary, it may be stated that women do not have equality of representation on the teaching staff of the Ontario universities. However, the percentage of female teaching staff does not differ substantially from the percentage of women in doctoral programmes; one might not then expect a significant increase in the participation ratio for women at the teaching staff level over the next few years. Women on the teaching staff have not been promoted into the higher

academic ranks to the same extent as their male counterparts nor are their average salaries as high as the average salaries for male teachers. It has been shown that a significant portion of the average salary differential between men and women can be accounted for but a residual salary differential still does remain. In order to completely settle any questions of discrimination on the part of the Ontario universities relating to hiring, promotion and salary policies, it would be necessary to conduct more studies in depth at each university on the effects of years of teaching and research experience.

C. Actions Taken by the Ontario Universities

Following the presentation to COU by the Ontario Status of Women Council, the executive heads of the Ontario universities were requested to report on actions their universities had taken, were taking, or were planning to take in respect of this issue. Replies were received from fourteen institutions. Five institutions reported that their present policies with respect to the hiring, promotion, and remuneration of staff and to the admission of students were identical for both men and women. One of the universities added that a special committee of its faculty association had reviewed this matter and had submitted a report in which there were no criticisms of existing university policies.

At the remaining nine universities special committees, or task forces, on the status of women had been appointed. The committees at two of the universities had not as yet reported. The work of the committees at two other institutions was also still in progress but in interim reports a number of recommendations had been made. The committees at the five remaining universities had submitted their final reports.

A brief summary is presented of recommended courses of action together with steps taken by those institutions which, though they may not have created special committees, nevertheless looked into a number of areas relating to the status of women by utilizing available mechanisms. Although various universities commented that

the participation of women as students was increasing on their campuses, there was widespread agreement that special efforts were required to increase the representation of women students, particularly in programmes which women do not currently consider. In a number of cases the recommendation was made that high school liaison activities, recruitment practices and counselling services should be reviewed to ensure that the full range of programme opportunities for women is being stressed. To accomplish this it is important that women are adequately represented amongst university personnel involved in these activities. One university stated that it has made a considerable effort to attract women into its science-oriented programmes. Another university has deliberately favoured female applicants to its physical education programme in order to attain equal representation on the part of women. Other universities have set up or are considering courses and programmes in women's studies. A point raised by some institutions was that, in general, university policies should be flexible enough to permit students to pursue either full-time or part-time studies regardless of age, marital status or sex. One university reported that special efforts were being made to increase opportunities for part-time study on-campus and in off-campus centres. The committee at another university recommended that all graduate programmes be open to part-time students. The committee at one university supported a programme of awards limited to women students. These awards would be viewed as a positive measure to attract more women students and would be converted to open awards applicable to all students when the representation of women students had increased.

While there was a general belief on the part of the universities that no conscious discrimination existed in the recruiting, hiring, remuneration, promotion and granting of tenure to academic staff, it was also the feeling of a number of universities that special measures were required in recruiting and hiring for new faculty positions to ensure that every effort was made to attempt to increase the representation of women. One university reported that its president had sent a letter to all deans and department heads alerting them to this need. It was also stated in the recommendations of various special committees that efforts should be made to increase the representation of women on various advisory

and senior administrative bodies. Over half of the reporting universities indicated that special committees had examined, or would be examining, salary levels for female faculty members with a view to eliminating any disparities which presently exist. In fact, at some institutions adjustments, where necessary, had been made. In addition, some of these special committees were also examining the appointment letters and rank levels of the female faculty members to determine if any inequities existed in these areas. Some universities were also reviewing employment conditions relating to the part-time academic staff.

A number of universities had examined, or were examining, starting salaries, salary scales and remuneration, job classifications and promotion mechanisms pertaining to the non-academic staff to ensure that there are no discriminatory practices in these areas. Many universities reported that their present policies and practices could not be used in a discriminatory fashion. Others indicated that reviews had already been initiated to comply with the Women's Equal Employment Opportunity Act and the Ontario Human Rights Code. One university reported that greater flexibility in recruitment and employment of women had been achieved due to more flexible work schedules.

Many of the reporting universities indicated that they had reviewed, or were planning to review, the wording in official university documents to ensure that no discrimination existed. Pension and fringe benefits have also received considerable attention. Day-care facilities exist on a number of campuses at the present time; other universities reported that they are investigating establishment of on-campus day-care facilities or the extension of existing services.

This section has briefly examined what the Ontario universities have done or are doing with respect to the status of women on campus. While the approach adopted varies from institution to institution, it would seem that the universities generally are making a sincere effort to uncover areas of discrimination, or potential discrimination, against women and to adopt whatever measures are needed to rectify the situation.

TABLE 1

APPLICANTS AND REGISTERED APPLICANTS FOR FULL-TIME STUDY IN FIRST YEAR OF POST-YEAR 5 UNDERGRADUATE PROGRAMMES IN SEPTEMBER 1973

Programme	APPLICANTS		REGISTERED APPLICANTS	
	Total Enrolment	% Women	Total Enrolment	% Women
Arts	21,118	51	14,799	52
Science	9,803	29	7,092	33
Agriculture	524	21	341	25
Business	4,376	23	2,753	25
Education	210	73	98	84
Engineering & Applied Science	4,896	4	2,742	4
Environmental Studies	773	18	322	27
Fine & Applied Arts	1,894	56	904	60
Household Science	691	96	434	98
Journalism	275	64	127	76
Physical & Health Education	2,586	45	1,240	54
Social Work	555	74	205	78
Health Related: Pre-Medicine	146	31	70	30
Nursing	1,245	97	485	99
Pharmacy	600	54	208	69
Rehab. Medicine	447	94	64	100
Dental Studies	358	87	77	75
Other	210	21	78	15
Total	50,707	41	32,039	43

Source: Ontario Universities' Application Centre

TABLE 2

FULL-TIME ENROLMENT IN ONTARIO UNIVERSITIES

1971-72

Programme	UNDERGRADUATE Total Enrolment	UNDERGRADUATE % Women	GRADUATE MASTERS Total Enrolment	GRADUATE MASTERS % Women	GRADUATE DOCTORAL Total Enrolment	GRADUATE DOCTORAL % Women
Arts	42,055	47				
Science	12,159	23				
Arts & Science	15,969	45				
Agriculture	942	13				
Commerce & Business	3,662	9				
Education	2,310	44				
Engineering & Applied Science	9,597	2				
Environmental Studies	520	28				
Fine & Applied Arts	2,381	58				
Household Science	1,107	98				
Journalism	401	61				
Library Science	76	67				
Physical & Health Education	3,950	45				
Secretarial Science	246	100				
Religion & Theology	555	9				
Social Work	596	72				
Professions: Dentistry	672	6				
Law	2,914	11				
Medicine	1,883	18				
Veterinary Medicine	321	16				
Optometry	258	12				
Health Related: Pre-Medicine	198	27				
Nursing	1,622	98				
Pharmacy	559	54				
Rehab. Medicine	184	91				
Dental Hygiene	104	99				
Other	382	36				
Total	105,623	38				
Humanities			1,156	38	1,048	32
Social Sciences			945	36	814	30
Sciences			1,355	16	1,560	8
Commerce & Business			1,052	3	39	0
Education			381	43	289	28
Engineering & Applied Science			1,034	2	634	1
Man/Environment Studies			275	21	8	0
Fine & Applied Arts			94	48	44	39
Household Science			5	100	2	50
Library Science			352	74	2	100
Political Science & Economics			493	14	333	11
Physical & Health Education			44	5		
Religious Studies			485	16	145	12
Social Work			460	54	24	25
Professions: Dentistry			12	17	5	0
Law			33	27	10	10
Medicine			181	35	243	18
Veterinary Medicine			10	0	14	7
Health Related: Nursing			26	81		
Pharmacy			16	25	3	33
Other			1	0	1	0
Total			8,410	25	5,222	18

Source: "Fall Enrolment in Universities and Colleges 1971-72"
Statistics Canada, September 1973
Information Canada, Ottawa

TABLE 3

AVERAGE SALARIES OF FULL-TIME TEACHING STAFF
(EXCLUDING MEDICAL/DENTAL)
IN ONTARIO UNIVERSITIES 1973-74

Rank and Qualification	MALE		FEMALE	
	Number in Rank	Average Salary	Number in Rank	Average Salary
Full Professor:				
Doctorate	1,731	26,680	54	24,056
Masters	288	25,825	12	23,165
Bachelors	69	26,783	6	25,058
Professional Degree	57	28,266	3	*
Subtotal	2,148	26,611	72	24,105
Associate Professor:				
Doctorate	2,022	18,848	168	18,003
Masters	417	19,282	72	18,652
Bachelors	114	19,919	15	19,313
Professional Degree	36	19,452	3	*
Subtotal	2,592	18,974	261	18,287
Assistant Professor:				
Doctorate	1,431	15,030	189	14,437
Masters	756	15,322	174	14,700
Bachelors	138	16,079	39	15,381
Professional Degree	39	14,975	6	14,910
Subtotal	2,364	15,183	408	14,647
Lecturer:				
Doctorate	54	11,972	15	12,627
Masters	393	12,459	162	11,781
Bachelors	84	12,458	78	11,509
Professional Degree	12	13,497	6	12,717
Subtotal	546	12,435	258	11,766
Total:	7,650	19,478	1,002	15,546

* Average salaries are not reported when the actual number of staff in a cell was 3 or less.

Source: Statistics Canada University Faculty Salary Analysis System

TABLE 4

DISTRIBUTION BY RANK OF MALE AND FEMALE FULL-TIME TEACHING STAFF
(EXCLUDING MEDICAL/DENTAL)
IN ONTARIO UNIVERSITIES 1973-74

Rank	MALE		FEMALE	
	Number in Rank	% of Total	Number in Rank	% of Total
Full Professor	2,148	28	72	7
Associate Professor	2,592	34	261	26
Assistant Professor	2,364	31	408	41
Lecturer	546	7	258	26
Total	7,650	100	1,002	100

Source: Statistics Canada University Faculty Salary Analysis System.

TABLE 5

DISTRIBUTION BY QUALIFICATION LEVEL OF
MALE AND FEMALE FULL-TIME TEACHING STAFF
(EXCLUDING MEDICAL/DENTAL)
IN ONTARIO UNIVERSITIES 1973-74

	MALE		FEMALE	
Qualification Level	Number in Level	% of Total	Number in Level	% of Total
Doctorate	5,238	69	426	42
Masters	1,854	24	420	42
Bachelors	405	5	138	14
Professional Degree	144	2	18	2
Total	7,650	100	1,002	100

Source: Statistics Canada University Faculty Salary Analysis System.

TABLE 6

DISTRIBUTION BY NUMBER OF YEARS SINCE AWARD OF HIGHEST DEGREE OF MALE AND FEMALE FULL-TIME TEACHING STAFF (EXCLUDING MEDICAL/DENTAL) IN ONTARIO UNIVERSITIES 1973-74

	MALE		FEMALE	
Years Since Highest Degree	Number of Staff	% of Total	Number of Staff	% of Total
0 - 4	1,899	25	327	33
5 - 9	2,505	33	333	34
10 - 14	1,350	18	150	15
15 - 19	825	11	78	8
20 - 24	564	8	54	5
25 - 29	186	2	18	2
30+	213	3	27	3
Total	7,650	100	1,002	100

Source: Statistics Canada University Faculty Salary Analysis System

TABLE 7

AVERAGE SALARIES OF FULL-TIME TEACHING STAFF
(EXCLUDING MEDICAL/DENTAL)
IN ONTARIO UNIVERSITIES 1973-74

AND AVERAGE SALARIES FOR FEMALE TEACHERS
NORMALIZED OVER RANK AND QUALIFICATION

	MALE	FEMALE	
Rank	Average Salary	Average Salary	Normalized Average Salary
Full Professor	26,611	24,105	23,967
Associate Professor	18,974	18,287	18,169
Assistant Professor	15,183	14,647	14,584
Lecturer	12,435	11,766	11,849
Total	19,478	15,546	18,242

Source: Statistics Canada University Faculty Analysis System

Appendix

Calculation of Normalized Average Salaries

Having postulated that differences in academic rank and qualification level between male and female members of the teaching staff contribute to the average salary differential, it is desirable to attempt to ascertain the magnitude of this contribution. The normalizing process accomplishes this by calculating a new set of average salary figures for women teachers, having first eliminated the disparities caused by differences in academic rank and qualification level. These disparities are removed by assuming that the female teachers have the same qualification pattern as the male teachers and are distributed throughout the academic ranks in the same proportions as the male teachers. Using this artificial distribution of female teachers, new average salaries are derived which can then be compared to the corresponding average salary figures for male teachers.

The calculations used in arriving at the normalized figures are outlined in the accompanying table. Column (1) presents the distribution of male teachers by qualification level within each academic rank. The number of teachers in each academic rank/qualification level category thus defined is expressed as a percentage of the total number of male teachers in column (2). Column (3) presents the actual distribution of the female teachers by qualification level within each academic rank. Average salary figures for the female teachers are shown for each academic rank/qualification level category in column (4).

To begin the normalizing operation, the female teachers are distributed into the academic rank/qualification level categories according to the percentage of male teachers in these categories. The total number of female teachers is multiplied in turn by each of the percentage figures of column (2) to produce the normalized female staff distribution figures reported in column (5). The subtotal figures for each academic rank are obtained by adding the four qualification level figures and will be used at a later stage in the calculations. The normalized female staff distribution figures and the average salary

CALCULATION OF NORMALIZED AVERAGE SALARIES

RANK AND QUALIFICATION	MALE (1) NUMBER IN RANK	MALE (2) % OF TOTAL	FEMALE (3) NUMBER IN RANK	FEMALE (4) AVERAGE SALARY	FEMALE (5) NORMALIZED STAFF DISTRIBUTION $\left[1{,}002 \times \frac{(2)}{100}\right]$	FEMALE (6) TOTAL SALARIES (4) x (5)	NORMALIZED AVERAGE SALARY (6) ÷ (5)
FULL PROFESSOR:							
DOCTORATE	1,731	22.7	54	24,056	227	5,460,712	
MASTERS	288	3.8	12	23,165	38	880,270	
BACHELORS	69	0.9	6	25,058	9	225,522	
PROFESSIONAL DEGREE	57	0.7	3	24,105*	7	168,735	
SUBTOTAL					281	6,735,239	23,967
ASSOCIATE PROFESSOR:							
DOCTORATE	2,022	26.5	168	18,003	266	4,788,798	
MASTERS	417	5.5	72	18,652	55	1,025,860	
BACHELORS	114	1.5	15	19,313	15	289,695	
PROFESSIONAL DEGREE	36	0.5	3	18,297*	5	91,435	
SUBTOTAL					341	6,195,788	18,169
ASSISTANT PROFESSOR:							
DOCTORATE	1,431	18.7	189	14,437	187	2,699,719	
MASTERS	756	9.9	174	14,700	99	1,455,300	
BACHELORS	138	1.8	39	15,381	18	276,858	
PROFESSIONAL DEGREE	39	0.5	6	14,910	5	74,550	
SUBTOTAL					309	4,506,427	14,584
LECTURER:							
DOCTORATE	54	0.7	15	12,627	7	88,389	
MASTERS	393	5.1	162	11,781	51	600,831	
BACHELORS	84	1.1	78	11,509	11	126,599	
PROFESSIONAL DEGREE	12	0.2	6	12,717	2	25,434	
SUBTOTAL					71	841,253	11,849
TOTAL:	7,641	100.0	1,002		1,002	18,278,707	18,242

* Average salary for the rank.

Source: Statistics Canada University Faculty Analysis System.

figures in column (4) are then multiplied together in turn to derive the total salary figures shown in column (6) for each academic rank/qualification level category. Again, the subtotal figures are obtained by addition. These are in turn added together to produce the total salary figure for all female teachers. The normalized average salary figures for each academic rank are calculated by dividing the total salaries subtotal figures of column (6) by the normalized staff distribution subtotal figures of column (5). The normalized average salary for all female teachers is similarly derived from the total figures reported in columns (6) and (5).